Amendments to the Specification:

Please replace the paragraph beginning on page 5, line 4 with the following:

A wireless cable replacement system is typically utilized in a networked environment. The cable replacement system allows wiring to be replaced with more flexible connectivity as supplied via one or more wireless links. A typical environment where a wireless cable replacement system would be utilized includes a home network, or a local area network (LAN). Home networks are typically utilized to allow appliances, computers, telephones, televisions and other devices equipped with suitable interfaces to communicate throughout the home and to an external Internet. A LAN typically interconnects, or networks, business equipment such as faxes, telephones, and computers together and to an external Internet. Typical communications protocols include HPNA in a home ~~enviornment~~ environment and ethernet in a business ~~enviornment~~ environment.

Please replace the paragraph beginning on page 6, line 30 with the following:

A series of ~~adaptors~~ adapters 101 are provided to establish a wireless link through a wireless medium such as RF or infrared 108. ~~Adaptors~~ Adapters present in the client devices 132, and coupled to a local backbone 110 make up a portion of the wireless cable replacement system. The local backbone includes

all of the wiring interconnecting the individual client devices 132 to a main wiring bus emanating from the residential gateway.

Please replace the paragraph beginning on page 7, line 5 with the following:

In addition an ~~adaptor~~ adapter is shown as part of the residential gateway 112. This embodiment couples signals from the bus of a cable modem MAC (not shown) included in the residential gateway to the ~~adaptor~~ adapter.

Please replace the paragraph beginning on page 7, line 9 with the following:

A residential gateway may be installed at a location inside or outside the home. The residential gateway accepts inputs from an IP network on one side that is capable of delivering IP (Internet Protocol) services to the home. The other side of the residential gateway [[10]] 112 can be the interface to the in home wiring that previously delivered POTS. The exemplary embodiment shown in FIG. 1 has two wire pairs, one pair continues to deliver POTS the other wire pair delivers POTS and other services to a local area network (LAN).

Please replace the paragraph beginning on page 8, line 24 with the following:

Two POTS phones are shown [[102]] 103. Both of these are traditional telephones connected to the residential gateway for

telephone service. As described above, for installations where only a single wire pair is available in the home as a local backbone, only one phone line is used, that would be the phone attached to the HomePNA network. Not shown in this drawing is the possibility of bridging additional POTS telephones on the wire pair, or local backbone 110. In this system, these bridged phones will behave as a bridged phone on a traditional POTS line. All bridged telephones are assigned to the same phone number and the ring/dial tone behavior is as described in TR-NWT-000057.

Please replace the paragraph beginning on page 10, line 8 with the following:

FIG. 2 is a block diagram of an exemplary embodiment of a DOCSIS compliant cable modem utilized as a residential gateway. The gateway includes ~~adaptor~~ adapter circuitry 101 that is coupled to the cable modem MAC 1112. The described exemplary embodiment may provide a highly integrated solution implemented single chip that is compliant with the (DOCSIS). DOCSIS was developed to ensure that cable modem equipment built by a variety of manufacturers is compatible, as is the case with traditional dial-up modems. The described exemplary embodiment can provide integrated functions for communicating with the CMTS. For example, a QPSK upstream modulator 1102 transmits data to the far end data terminating device, a QAM downstream demodulator 1100 receives data from the far end data terminating device via a CMTS, and a QPSK out of band downstream demodulator 1106 receives out of band MPEG-2 encoded messages from the CMTS.

Please replace the paragraph beginning on page 14, line 17 with the following:

In addition to the SDRAM interface 1116, the described exemplary embodiment of the gateway includes a 16-bit external bus interface (EBI) 1140 that supports connection to flash memories 1142, external SRAM 1144 or EPROMS [[1144]] 1146. Additionally, the EBI 1140 may be used to interface the described exemplary network gateway with additional external peripherals. The EBI 1140 can provide a 24 bit address bus and a 16-bit bi-directional data bus. Separate read and write strobes can be provided along with multiple firmware configurable chip select signals. Each chip select can be fully programmable, supporting block sizes between about 4 K-bytes and 8 M-bytes, extended clock cycle access control and 8 or 16-bit selection of peripheral data bus width. In the described embodiment, the EBI 1140 can support both synchronous and asynchronous transfers. Pseudonymous transfers may be supported through the use of read/write strobes to indicate the start and duration of a transfer. The EBI 1140 can include DMA access capability to or from the SDRAM interface 1116. The DMA operation may take one or more forms. For example, in EBI mode, an EBI bridge can act as the DMA controller, and perform all pointer and buffer management tasks during DMA operations. In an external mode, an external device can act as the DMA controller and the EBI 1140 can serve as a simple bridge. In DMA mode the MIPS core1128 can be responsible for DMA setup.

Please replace the paragraph beginning on page 18, line 14 with the following:

In the upstream direction, the MIPS ~~core1128~~ core 1128, can ~~allocates~~ allocate memory space for incoming data, then write the descriptor with the start address for that buffer. The DMA controller 1150 [[read]] reads the base address and [[insert]] inserts data until either the buffer is full or an end of packet has been detected. The DMA controller 1150 can update the descriptor, communicating to the MIPS ~~core1128~~ core 1128 that the block is [[full ,]] full, indicating the length of the data on the block, and/or asserted first and or last buffer flags.

Please replace the paragraph beginning on page 21, line 21 with the following:

FIG. 4 is a block diagram of an ~~adaptor~~ adapter embodiment that interfaces with the exemplary cable modem MAC via a gateway bus. A residential gateway 112, as previously described, includes a cable modem MAC bus 1118 of FIG. 2. Thus the cable modem MAC bus 1118 is coupled to a device dongle 136 via connector 129.

Please replace the paragraph beginning on page 21, line 26 with the following:

Device dongle 136 includes a connector 129 coupling signals to an ~~adaptor~~ adapter 101. The ~~adaptor~~ adapter 101 includes a network interface 122 coupled to a transceiver 124 and are both

disposed on a substrate 142. Wireless signals are received and transmitted by transceiver 124. Transceiver 124 is coupled to network interface 122. Network interface 122 reformats packetized data being transferred between the cable modem MAC bus 1118 and the transceiver 124 such that the transceiver may communicate with the gateway. Reformatting of the data is accomplished by conventional circuitry known to those skilled in the art. In the exemplary embodiment, the network interface 122 includes conventional circuitry for converting a Bluetooth radio signal to a format compatible with the cable modem MAC bus.

Please replace the paragraph beginning on page 32, line 7 with the following:

Optimized performance is achieved through frequency planning and implemented by programmable dividers in the LO generator to select different ratios. Based on FIG. [[2]] 7, all the dependencies of the frequencies are shown by the following equation:

Please replace the paragraph beginning on page 32, line 16 with the following:

Turning back to FIG. [[2]] 7, the transmitter 12 includes a complex buffer 54 for coupling incoming I-Q modulated baseband signals to a programmable low-pass filter 56. The low-pass filter 56 can be programmed by the controller through the select input. The output of the low-pass filter 56 is coupled to complex mixers 58. The complex mixers 58 mixes the I-Q

modulated baseband signals with the RF clocks from the LO generator to directly upconvert the baseband signals to the transmitting frequency. The upconverted signal is then coupled to an amplifier 60 and eventually a power amplifier (PA) 62 for transmission into free space through the antenna. A bandpass filter (not shown) may be disposed after the PA 62 to filter out unwanted frequencies before transmission through the antenna.

Please replace the paragraph beginning on page 33, line 29 with the following:

FIG. 8 is block diagram of a wall dongle. The wall dongle 138 provides a means of coupling the ~~adaptor~~ adapter 101 to the local backbone 110. In an exemplary embodiment, a local backbone connection 110 is available through a telephone wall jack (not shown). This connection is typically provided through an RJ-11 type phone jack. Connector 128, an RJ-11 phone plug in the exemplary embodiment, couples an external cable 120 to the local backbone 110. External cable 120 is coupled to a conventionally constructed network interface 122 which is in turn coupled via connection 130 to a transceiver 124, including an emitter 118 utilized for transmitting and receiving over the wireless link.